



Jefferson Lab Alignment Group

Data Transmittal

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Checked: JCD

: A1137

DETAILS:

Data: AALIGN\Electron&sh\2007\E100407A & E100807A

Below are the results from the left spectrometer survey carried out on 4th October, and the superharp survey from the 8th October, 2007. The coordinates of the three points located on the link are given in millimeters relative to the Hall A target and beamline, with +Z along the beam, +X to the beam left, and +Y up. The horizontal offset from each point to a line between the ideal target and the spectrometer Jack point is also shown.

For the superharp girder components, the DX and DY values represent the difference in millimeters from the ideal position of each fiducial, excluding the calorimeter which represents the centerline.

===== RESULTS ===== E100407A

The central ray of the spectrometer is at -14.635 degrees.
It is missing the defined target center by 1.42 mm upstream,
and -0.39 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the spectrometer will be at -14.645 degrees.

*.9PR : 0.136 *.3DD : 2.01

	<u>Z (mm)</u>	<u>X (mm)</u>	<u>Y (mm)</u>	<u>Offset (mm)</u>
JACK	8182.76	2138.25	-1.80	0.00
ESPECTX	1138.56	2332.03	-2067.94	-1968.41
ESPECTY	5488.82	3107.70	-1988.06	-1619.04
ESPECTZ	5678.21	414.08	-1966.12	1034.95

	DX	DY
Superharps		
SH1H01A	-0.03	-0.06
SH1H01B	0.07	-0.06
SH1H01C	0.06	0.00
SH1H02A	-0.80	-0.21
SH1H02B	-0.72	-0.18
SH1H02C	-0.73	-0.11
Cavity BPMs		
BCM1H1B	-0.04	-0.32
BCM1H1C	0.10	-0.24
BCM1H2A	-0.79	-0.30
BCM1H2D	-0.33	-0.33
Calorimeter		
MBC1H04	-0.42	-0.25